



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------------|------------------------|
| 10/710,314 | 07/01/2004 | Leonard Shaner | 81100061 / FMC 1755 PUS | 4313 |
| 28395 7590 11/19/2007 BROOKS KUSHMAN P.C./FGTL 1000 TOWN CENTER 22ND FLOOR SOUTHFIELD, MI 48075-1238 | | | EXAMINER SPISICH, GEORGE D | |
| | | | ART UNIT 3616 | PAPER NUMBER |
| | | | MAIL DATE 11/19/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/710,314

Applicant(s)

SHANER ET AL.

Examiner

George D. Spisich

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-20 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>9/4/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,7 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Sato et al. (USPUB2003/0168836).

Sato discloses a side airbag (1) apparatus (see at least Figs. 7 and 8) having side aspect including a generally triangular portion when the airbag is deployed. The side aspect being "at least partially" defined by a posterior edge, a top edge extending forward from the posterior edge, at least a portion of the bottom edge extending forward and upward toward the top edge, such that the side aspect narrows from a back region to a front region to at least partially define the generally triangular portion. Due to the broad language of "at least a portion" of the bottom edge, the term "triangular portion", and "at least partially define" the airbag of Sato includes a tapering portion (in side view, the forward half of the airbag) that has "a portion" of the bottom edge extending forward and upward from the posterior edge. It includes a triangular portion (not claimed to be

the entire side of the airbag). Given this "sub" portion, there is a posterior and forward area of this sub-portion.

Sato shows an inflator cooperating with the airbag to supply gas thereto, thereby facilitating deployment of the airbag.

The airbag shows what is well known in the airbag art, to provide a reinforced region (any area of the airbag such as the central portion/chamber) for providing additional strength to the airbag.

The portion of the bottom edge extending forward and upward is connected to the top edge by a radiused corner (near 16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2,8,13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. et al. (USPUB2003/0168836) in view of Zhao et al. (USPN 9,991,257).

Sato et al. has been discussed in the prior rejection. However, the airbag of Sato et al. does not have a wedge shape rear aspect.

Zhao et al. (as shown in at least Figs. 4A and 4B) shows a side airbag having a generally wedge shaped rear aspect narrowing from an upper region to a lower region.

This shaped would provide more protection in the upper torso/upper arm region of an occupant.

It is well known in the airbag art to have various shapes for airbags that provide protection in a variety of vehicle locations and with respect to parts of a vehicle occupant's body as deemed necessary.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the airbag of Sato et al. so as to provide a wider portion of the airbag towards the upper portion of the airbag and a tapering portion towards the lower portion (where impact with the occupant's torso not as harsh due to the mass and width of the upper torso) so as to provide a wedge-shaped rear aspect as taught by Zhao et al. so as to provide enhanced protection for an occupant seated adjacent the deployed airbag.

Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. et al. (USPUB2003/0168836) in view of Kai et al. (USPN 7,108,278).

Sato et al. has been discussed in the prior rejection. However, the airbag of Sato et al. does not have a wedge shape top aspect or vent holes to exhaust air from the airbg.

Kai et al. (as shown in at least Fig. 6) shows a side airbag having a generally wedge shaped top aspect narrowing from a posterior region to a front region. This shaped would provide more protection in the upper torso/upper arm region of an occupant.

It is well known in the airbag art to have various shapes for airbags that provide protection in a variety of vehicle locations and with respect to parts of a vehicle occupant's body as deemed necessary.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the airbag of Sato et al. so as to provide a wider portion of the airbag towards the posterior portion of the airbag and a tapering portion towards the front portion (where impact with the occupant's torso not as harsh due to mass and width of the upper torso) so as to provide a wedge-shaped top aspect as taught by Kai et al. so as to provide enhanced protection for an occupant seated adjacent the deployed airbag.

Claims 4,5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (USPUB2003/0168836) in view of Keshavaraj et al. (USPN 6,344,251).

Sato et al. has been discussed in a prior rejection. However, Sato et al. does not show the airbag comprising a polymeric material of at least 600 denier or the inflator configured to inflate the airbag to at least 25 pounds per square inch.

Although Examiner maintains that it is well known in the art to use a known fabric of desired strength and an inflator that provides adequate inflation for occupant protection, Examiner is further relying on Keshavaraj et al. for this teaching.

Keshavaraj et al. (see col. 2, lines 45-67) discloses the use of a polymeric material having up to 840 denier and compatible with inflation of (col. 1, lines 50-52) pressures as high as 50 psi.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use any known material and inflator characteristics in the airbag arrangement of Sato et al. such as one having the parameters and that is disclosed by Keshavaraj et al. since providing a strong airbag would be more durable and provide enhanced protection for the occupant seated beside the airbag.

Claims 9, 12 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (USPUB2003/0168836) in view of Zhao et al. (USPN 6,991,257) as applied to claims 2, 8, 13 and 14 above, and further in view of Kai et al. (USPN 7,108,278).

Sato et al. in view of Zhao et al. have been discussed in a prior rejection. However, neither reference shows a wedge shaped top aspect.

Kai et al. (as shown in at least Fig. 6) shows a side airbag having a generally wedge shaped top aspect narrowing from an posterior region to a front region. This shaped would provide more protection in the upper torso/upper arm region of an occupant.

It is well known in the airbag art to have various shapes for airbags that provide protection in a variety of vehicle locations and with respect to parts of a vehicle occupant's body as deemed necessary.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the airbag of Sato et al. in view of Zhao et al. to further have a tapered view from the top aspect, narrowing from a posterior region to a

front region as taught by Kai et al. so as to provide enhanced protection for an occupant seated adjacent the deployed airbag.

Claims 10,11,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (USPUB2003/0168836) in view of Zhao et al. (USPN 6,991,257) as applied to claims 2,8,13 and 14 above, and further in view of Keshavaraj et al. (USPN 6,344,251).

Sato et al. in view of Zhao et al. has been discussed in a prior rejection. However, neither Sato et al. nor Zhao et al. show the airbag comprising a polymeric material of at least 600 denier or the inflator configured to inflate the airbag to at least 25 pounds per square inch.

Although Examiner maintains that it is well known in the art to use a known fabric of desired strength and an inflator that provides adequate inflation for occupant protection, Examiner is further relying on Keshavaraj et al. for this teaching.

Keshavaraj et al. (see col. 2, lines 45-67) discloses the use of a polymeric material having up to 840 denier and compatible with inflation of (col. 1, lines 50-52) pressures as high as 50 psi.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use any known material and inflator characteristics in the airbag arrangement of Sato et al. in view of Zhao et al. such as one having the parameters and that is disclosed by Keshavaraj et al. since providing a strong airbag would be more durable and provide enhanced protection for the occupant seated beside the airbag.

Response to Arguments

Applicant's arguments with respect to claims 8 and 13 have been considered but are moot in view of the new ground(s) of rejection. Applicant successfully argued that the applied references in the Office Action of 5/3/07 did not show a side aspect having generally triangular portions. Therefore this Office Action is Non-Final.

However, the present claims are properly rejected by the applied references in this Office Action. The broad limitations of triangular "portion", "at least a portion" of the bottom edge, "at least partially define" the generally triangular portion" and posterior/front "region" are so broad that the applied references properly read on the claimed limitations. The use of the term "portion" and/or "region", can be defined as any portion of the airbag, that being on a diagonal, more or less than half of the airbag, etc. Applicant has not claimed the particular detail of the invention to read over the applied references.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George D. Spisich whose telephone number is (571) 272-6676. The examiner can normally be reached on Monday-Friday 9:00 to 6:30 except alt. Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/710,314
Art Unit: 3616

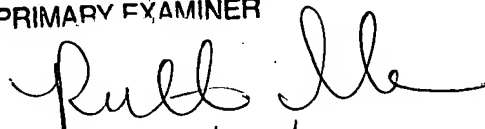
Page 9

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

George D. Spisich
November 12, 2007



RUTH ILAN
PRIMARY EXAMINER


11/13/07